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RATING THE NATIONS: A STUDY IN THE STATISTICS OF OPINION

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In these troublous times, when apostles of *Kultur* assail disciples of *Liberté*, and hordes of *Muzhiks* slaughter swarms of *Bauern*, a neutral often wonders what is the relative worth of these men. Americans especially are interested in the character of the immigrants who flood into the melting-pot of our national life. How can we tell which will make the most desirable citizens? How shall we rate the nations?

Of course there are comparative statistics of foreign countries and the figures of our own immigration, census, and police authorities, showing the proportion of illiteracy, naturalization, and crime assigned to each national group. These data are of greatest significance. But there are also important personal qualities, such as sympathy and adaptability, which are difficult to determine statistically. Nevertheless, we are convinced that the typical Celt surpasses the average Anglo-Saxon in certain traits. We might arrange representatives of different nations in order according to their relative excellence or deficiency in a given quality, just as we rate orators without any fixed scale of measurement.¹ If we could be sure that our exemplars were fair samples of their people and that no personal bias influenced the estimates, we might even assign them numerical values and standardize them as inspectors grade produce.

One way to avoid the danger of restricted or biased selection is to consider the arrangement of samples offered by many observers and to offset their aberrancies by striking an average. Obviously the resultant rating is no better than the mean judgment of these observers. But if we should select the most expert students to

¹ See Mill, *Logic* (8th ed.), Book VI, chap. v, pp. 599-601.

give an opinion and if we found these statements, with slight variations, in agreement, we might assume that our findings correspond closely with the facts.¹

Some time ago the writer attempted to apply this method to the rating of the most important ethnic varieties in the population of the United States. For this purpose ten significant qualities were chosen, and twenty-five persons throughout the country were requested to arrange the nationalities according to their relative superiority in these traits. Only ten complete schedules were returned, but the small number is offset by the experience and quality of the observers. They are sociologists, psychologists, journalists, and social workers who have studied various groups among our people. It is true that personal limitations and prejudices affect their results. Still the outcome of such a composite expression of opinion may be regarded as a significant indication of how trained students value the principal strains in our population. It may be added, also, that not all the correspondents were born and educated in America, so that some correction for national bias is implied.

It should also be remarked that the observers were asked to consider these people as they appear in this country at present. Historical differences and distinctions in environment are not thereby eliminated, but a relatively uniform setting for the manifestation of inherent and acquired traits is assumed. Consequently no presumption of international superiority or inferiority can properly be made from these data. All that is attempted is the presentation of a definite judgment as to the relative position of representative stocks in our own population.

Table I shows the sequence of the groups in the qualities indicated. Most of them display a striking uniformity of grade in all traits save that of sympathy. The Irish, Jews, and native Americans appear to vary considerably in excellence, but the repeated low ranking of Negroes, Italians, Slavs, and French Canadians is remarkable. It may be said that Anglo-Saxon prejudice here prevails, and it must be admitted that Negroes, Slavs, or Latins

¹ See Cattell, "Rating American Men of Science," *Science*, Vols. XVII and XXIV.

were not represented in our list of observers. However, since American standards of judgment have been derived mainly from English and Teutonic sources, this order probably represents the relative conformity of other peoples to our notions of excellence.

TABLE I

CONSECUTIVE ORDER OF TEN ETHNIC VARIETIES IN THE POPULATION OF THE UNITED STATES ACCORDING TO THEIR MEAN RATING IN TEN SELECTED TRAITS

	Order of Na- tive White Americans	Order of Germans	Order of English	Order of Polish and Russian Hebrews	Order of Scandi- navians	Order of Irish	Order of French Canadians	Order of Austrian Slavs	Order of South Italians	Order of Negroes
Physical vigor	3	2	5	8	1	4	6	7	9	10
Intellectual ability	1	2	4	3	5	6	8	7	9	10
Self-control	3	1	2	5	4	7	6	8	9	10
Moral integrity	4	1	2	5	3	8	7	6	9	10
Sympathy	6	4	10	5	9	1	8	7	3	2
Co-operation	1	2	3	5	6	4	8	7	9	10
Leadership	1	4	2	6	5	3	7	8	9	10
Perseverance	4	1	3	2	5	8	7	6	9	10
Efficiency	1	2	3	4	5	6	7	8	9	10
Aspiration	2	4	3	1	6	5	7	8	9	10
All qualities	1	2	3	4	5	6	7	8	9	10

It will be noted that Germans appear to have higher grades than native Americans, although their rank in all qualities is given as second. This is due to the fact that the actual positions assigned in each case are not given in Table I, but only their relative order. It sometimes happened that an observer was unable to grade all varieties in each trait, and so left a position unfilled or placed two groups in the same rank. It also occurred that their averages for several ratings brought two groups into the same position. So there may be no variety filling the first grade and there may be several in second and third positions, like a graduating class without any honor men, but with a host of mediocre students. Table II, which gives the mean positions—i.e., the calculated medians—for each class, makes their relative standing clearer.

This table shows the amount of divergency of the mean ratings. But absolute position is here less important than consistency in the ranking. Scattering returns would shake our confidence in the

value of the judgments, but close agreement would indicate some degree of certainty. It is of interest, therefore, to see how widely individual opinions vary from their common result. For this purpose the limits of probable error have been used, and where

TABLE II

MEDIAN POSITIONS OF POPULATION GROUPS IN GIVEN TRAITS FROM TEN GRADINGS

	Native White Americans	Germans	English	Polish and Russian Hebrews	Scandinavians	Irish	French Canadians	Austrian Slavs	South Italians	Negroes
Physical vigor.....	3.84	3.18	4.70	7.50	3.00	4.00	4.84	7.12	8.50	9.00
Intellectual ability....	2.00	2.84	3.17	3.00	5.00	6.50	7.50	7.18	8.71	9.88
Self-control.....	3.00	1.50	2.25	4.61	4.18	7.10	7.00	7.84	9.00	9.50
Moral integrity.....	3.50	1.33	2.84	5.18	3.00	7.00	6.00	5.84	8.50	9.80
Sympathy.....	6.00	4.50	8.50	5.53	8.00	1.50	7.00	6.50	3.00	3.00
Co-operation.....	2.00	2.84	3.50	5.50	6.00	4.00	6.50	6.00	8.00	8.50
Leadership.....	1.40	4.13	2.75	6.00	5.48	3.00	7.00	7.64	8.25	9.75
Perseverance.....	4.25	1.75	3.89	2.25	5.00	7.50	7.34	6.75	8.38	9.86
Efficiency.....	1.22	2.17	3.17	4.17	4.84	6.50	7.00	7.50	7.84	9.87
Aspiration.....	2.50	4.84	3.84	1.50	5.50	5.50	7.17	7.67	8.25	9.84
All qualities.....	2.77	2.89	3.56	4.36	5.07	6.00	6.84	7.03	8.22	9.65

these are not the same above and below the median (as when judgments are bunched at one end of the scale and tail off toward the other), the wider divergence is given to make discrepancies plain. Table III presents this evidence of unanimity and disagreement in the rating.

The average deviation of all judgments from the standards established by the collective opinion of the observers is about one place and a sixth. That is, any individual rating is likely to be a little over a point above or below the mean position fixed by the whole number. This shows only moderate dispersion. But particular judgments display considerable variation in this respect. For instance, our observers were more unanimous about moral and intellectual qualities than about physical and social traits. On the whole, they placed Italians and white Americans more exactly than Negroes and Irish. Of course, this may have been due to differences in personal experience and point of view, or it may even reflect mere ignorance and prejudice. But certainly the ratings

for Negroes in intellect, aspiration, perseverance, and efficiency are definite and consistent, whereas opinions about German sympathy, Slavic aspiration, and Hebrew vigor are so divergent as to be practically worthless.

TABLE III
DIVERGENCE OF RATINGS
(LIMITS OF PROBABLE ERROR FROM MEDIAN POSITIONS)

	South Italians	Native White Americans	English	Germans	Austrian Slavs	Scandinavians	French Canadians	Polish and Russian Hebrews	Negroes	Irish	Average Error for All
Moral Integrity...	1.50	.84	1.09	.67	1.16	1.25	1.68	2.57	.55	1.00	.98
Intellectual ability	.96	.76	1.58	1.50	1.18	1.00	2.25	1.34	.31	1.25	1.01
Efficiency.....	.84	1.53	1.08	1.08	2.16	1.84	1.25	1.17	.37	1.50	1.04
Self-control.....	.75	.75	1.75	2.50	1.84	1.58	1.00	.85	3.16	.58	1.09
Aspiration.....	1.25	1.00	.84	1.34	5.67	1.00	1.67	1.00	.34	1.50	1.12
Leadership.....	1.25	.60	1.25	1.37	1.47	2.02	1.50	2.00	.75	1.50	1.13
Perseverance.....	1.13	1.25	1.89	1.09	1.75	2.50	1.66	1.75	.36	2.00	1.17
Physical vigor....	.83	.91	.96	2.07	1.56	1.66	2.84	4.50	2.00	2.25	1.54
Sympathy.....	1.84	3.50	2.00	5.00	1.50	1.84	2.50	3.00	1.50	2.00	1.78
Co-operation.....	1.50	3.00	4.00	3.16	1.84	1.00	1.50	4.00	3.50	2.00	1.94
All qualities.....	.84	1.43	1.49	1.53	1.53	1.57	1.64	2.14	2.15	2.50	1.16

It may be said that the whole exhibit is worthless because so few persons determined such complex relations. But by combining the ratings in all qualities for each ethnic group, we have a hundred judgments on every one. It will probably be granted that the distribution of a thousand different choices is a valid basis for a significant array of ten specimens. It would be a rash student of probabilities who in the face of Chart I would assert that its skyscraper arrangement is the result of pure chance. Were its steps smoothed off, it would resemble the side elevation of a mountain range whose spreading bases overlap, but whose high peaks stand up sharp against the horizon. Such peaks, or modes, fix the positions of most biological varieties in the scale of comparative anatomy.

This arrangement of ten composite judgments does not necessarily yield a correct result; but, giving equal weight to each opinion, it does show a definite order of choice, which may be made

the basis of interesting calculations. For instance, taking the positions in Table II as indexes and weighting them by the numbers of each group in the population, we may compute how much intermingling has affected the standing of the composite people.

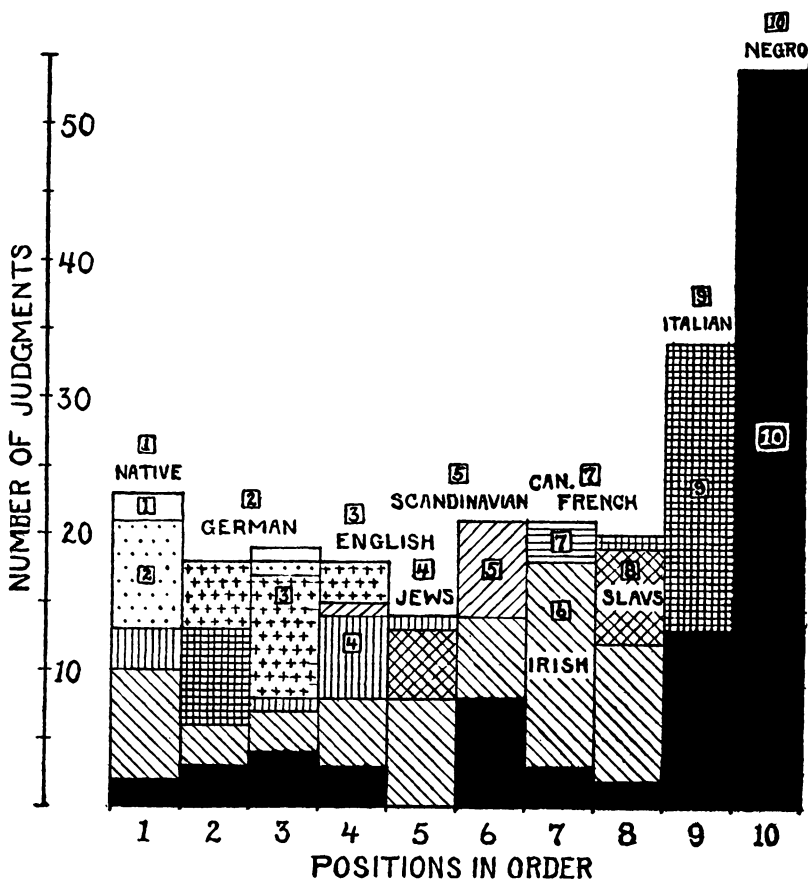


CHART I.—Showing Modal Judgments

Obviously, since most varieties are ranked below natives in practically all traits, we should expect to find that mixture lowers the American level. The important question is, How far? Table IV shows the result in all qualities.

It must be admitted that statistical difficulties appear in this method of comparison. The purpose of this study is not to develop a refined technique, however, but to suggest practical results that may be derived from such treatment. For instance, it is useful to know that according to these ratings the social potential of the population of New York City in 1910 was lower than that of Chicago, the mean positions being 3.85 and 3.60 respectively; and that both were lower than they were ten years previously, when they were 3.67 and 3.46. These statements indicate the effects of recent immigration.

TABLE IV
RELATIVE POSITION AND RANK OF NATIVE AND MIXED POPULATION

	NATIVE WHITE POPULATION		COMPOSITE POPULATION		SHIFT BY INTERMIXTURE	
	Position	Rank	Position	Rank	Position	Rank
Efficiency	1.22	1	2.62	3	-1.40	-2
Leadership	1.40	1	2.74	2	-1.34	-1
Co-operation	2.00	1	3.04	3	-1.04	-2
Intellect	2.00	1	3.23	5	-1.23	-4
Aspiration	2.50	2	3.63	3	-1.13	-1
Self-control	3.00	3	4.01	4	-1.01	-1
Integrity	3.50	4	4.36	5	-.86	-1
Vigor	3.84	3	4.57	5	-.73	-2
Perseverance	4.25	4	5.08	6	-.83	-2
Sympathy	6.00	6	5.58	6	+.42	0
All qualities	2.77	1	3.77	4	-1.00	-3

It is also interesting to consider the relative standing of immigrant stocks compared with the position of native Americans as a standard. Chart II illustrates this comparison by two broken lines which show for Germans and Negroes respectively how their ratings in each quality diverge from the fixed level of reference. The ingenious statistician will find many correlations to elaborate, but the average student will probably require a broader basis of facts before plunging into extensive calculations of quantitative results.

In order to test by more numerous if less expert judgments the value of these ratings here presented, the writer asked the students

in an undergraduate course in sociology and those of a graduate group to arrange in order six foreign nationalities in two qualities. Table V shows the results. The first point that strikes one is the close agreement between these independent series. In only three

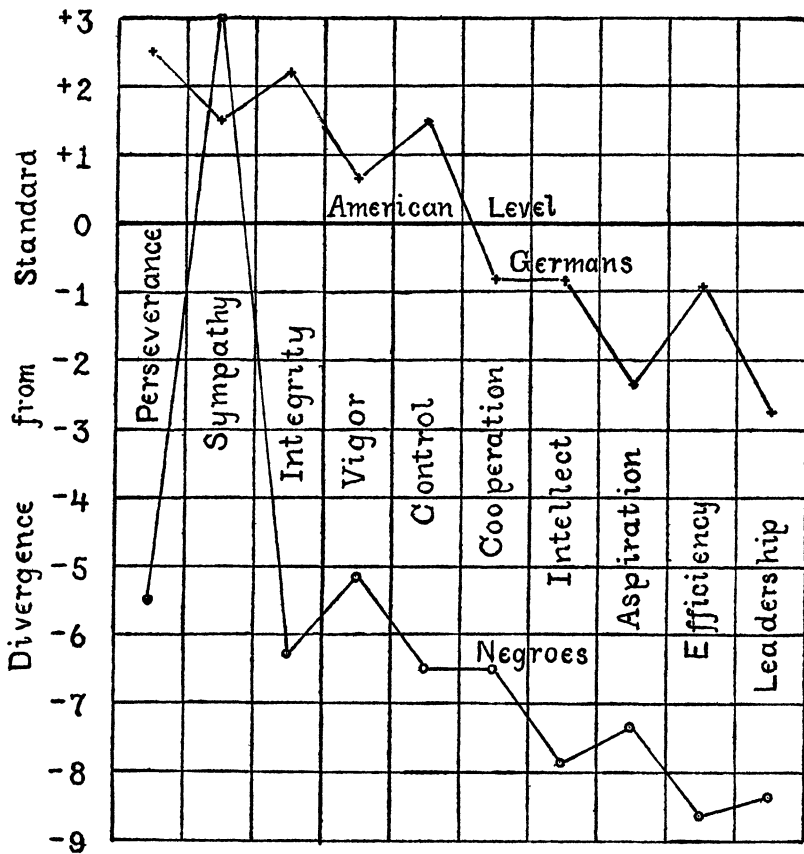


CHART II.—Comparison of High and Low Varieties with American Standard

instances does the order fail of complete agreement, and there by less than one position. In the next place it will be noted that, although grading six nationalities is a different problem from that of rating ten immigrant stocks, the rank assigned to Germans, English, Irish, and Slavs is almost identical with their sequence

in intellect and sympathy as given in Table I. It may be added that several of the students were foreign by birth and early education. Perhaps so much is sufficient to indicate a kind of *consensus gentium* in such estimates.

TABLE V
COMPARATIVE POSITIONS OF SIX ETHNIC VARIETIES
FROM INDEPENDENT RATINGS IN TWO QUALITIES

	SCIENTIFIC ABILITY		
	20 Under- graduates	25 Graduates	Both Combined
German.....	1.50	1.30	1.40
English.....	2.60	1.89	2.03
French.....	1.94	2.76	2.34
Italian.....	4.20	4.25	4.24
Irish.....	5.17	5.32	5.25
Slav.....	5.68	5.25	5.50
	EMOTIONALISM		
	Under- graduates	Graduates	Both Combined
Italian.....	1.50	1.17	1.29
French.....	2.10	2.13	2.12
Irish.....	3.17	2.87	2.98
Slav.....	5.00	4.33	4.45
German.....	4.72	4.75	4.74
English.....	5.10	5.06	5.07

Unquestionably the most important problem here presented is that of the validity of the judgments upon which the calculations are based. Lacking objective tests of their accuracy, we may regard the ratings by our observers merely as approximations. But their returns give us a basis for measuring exactly the opinion of the group and the divergence of any member from the common standard. Without raising the question of their correctness, we can analyze these results precisely. For instance, Table VI shows the conformity of such opinions among the graduate students and grades individuals by their variations.

The statistical student will recognize the approximation of this array to a skewed curve of probability, and can readily transform

the positions in order into units of amount. From our data we might also calculate the correlation of judgments regarding different qualities and so estimate the relative accuracy of our observers. Thus the method here employed may be shown to have its own

TABLE VI

DISPERSION OF JUDGMENTS FROM MEDIAN OF GROUP		Number of Individuals
Average Deviation		
.41-	.45 of a position.	1
.46-	.50 of a position.	0
.51-	.55 of a position.	2
.56-	.60 of a position.	3
.61-	.65 of a position.	3
.66-	.70 of a position.	2
.71-	.75 of a position.	3
.76-	.80 of a position.	4
.81-	.85 of a position.	3
.86-	.90 of a position.	1
.91-	.95 of a position.	1
.96-	1.00 of a position.	1
.....		
1.31-1.35	of a position.	1
Standard deviation = .66+.		Total individuals = 25

measure of reliability. But such manipulation of data may be left for those mathematically inclined. The object of this study is to urge upon sociologists the wider collection of data and its precise arrangement, so that expressions of personal opinion may yield to widely accepted statements of fact, and that general affirmations may give place to quantitative estimates.